

Notice of Allowability

Application No.

10/736,309

Examiner

Dai A. Phuong

Applicant(s)

CREAMER ET AL.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 07/02/2006.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments filed on 07/02/2007. Claims 1-19 are currently pending.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowed:

Claims 1-19 are allowed.

Regarding claim 1, the prior art record fails to anticipate or render obvious a gateway serving as an interface between a mobile network and a wireless network, wherein the gateway is configured to appear as an additional mobile data base station of the mobile network to a mobile switching center of the mobile network, and *wherein said gateway is configured to send a heightened signal strength indicator associated with a mobile device to the mobile switching center for prompting the mobile switching center to recognize the gateway as a preferred path for handing off a call from a mobile data base station of the mobile network currently handling the call of the mobile device responsive to the mobile device transmitting a SIP invite message to the gateway informing the gateway that the mobile device will begin transmitting communication signals at reduced power to produce weakened signals to trigger a hand-off condition in the mobile switching center, wherein the gateway presents the heightened signal strength indicator with a predetermined value representing a sufficient signal strength so that the mobile switching center routes the call to the gateway responsive to receiving the SIP invite*, all limitations in combination as defined by applicant.

Regarding claim 7, the prior art record fails to anticipate or render obvious within a gateway interface, a method of call control between a mobile network and a wireless network

comprising: establishing, with a mobile switching center of said mobile network, a control messaging link for exchanging mobile control channel signaling data, and a voice channel link for exchanging audio data for a mobile call, *wherein said gateway appears as an additional mobile data base station of the mobile network to the mobile switching network; establishing a communications link with a packet-switched network; receiving a SIP invite from a mobile device over the packet-switched network indicating that the mobile device will lower a transmit signal power to produce weakened signals to trigger a hand-off from the mobile network to the wireless network; sending a heightened signal strength indicator to the mobile data base station currently handling the mobile call responsive to receiving the SIP invite for prompting the mobile switching center to recognize the gateway as a preferred path for handing off the mobile call; and routing the mobile call from said mobile data base station to a wireless access point via the packet-switched network, such that the call is conducted via a wireless communications link using the wireless access point,* all limitations in combination as defined by applicant.

Regarding claim 11, the prior art record fails to anticipate or render obvious a system for call control between a mobile network and a wireless network comprising: means for establishing, with a mobile switching center of said mobile network, a control messaging link for exchanging control signal channel signaling data and a voice channel link for exchanging audio data for a mobile call, *wherein said gateway appears as an additional mobile data base station of the mobile network to the mobile switching network; means for establishing a communications link with a packet-switched network; means for receiving a SIP invite from a mobile device over the packet-switched network indicating that the mobile device will lower a*

transmit signal power to produce weakened signals to trigger a hand-off from the mobile network to the wireless network; means for detecting the weakened signals being transmitted at a reduced power from the mobile device responsive to receiving the SIP invite; means for sending a heightened signal strength indicator to the mobile data base station currently handling the mobile call responsive to detecting the weakened signals for prompting the mobile switching center to recognize the system as a preferred path for handing off the mobile call; and means for routing the mobile call from said mobile data base station to a wireless access point via the packet-switched network, such that the call is conducted via a wireless communications link using the wireless access point, all limitations in combination as defined by applicant.

Regarding claim 15, the prior art record fails to anticipate or render obvious a computer readable medium, having stored thereon a computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of: establishing, with a mobile network switching center of said mobile network, a control messaging link for exchanging mobile control channel signaling data and a voice channel link for exchanging audio data for a mobile call, *wherein said gateway appears as an additional mobile data base station of the mobile network to the mobile switching network; establishing a communications link with a packet-switched network; receiving a SIP invite from a mobile device over the packet-switched network indicating that the mobile device will lower a transmit signal power to produce weakened signals to trigger a hand-off from the mobile network to the wireless network; detecting the weakened signals being transmitted at a reduced power from the mobile device responsive to receiving the SIP invite; sending a heightened signal strength indicator to*

the mobile data base station currently handling the mobile call responsive to detecting the weakened signals for prompting the mobile switching center to recognize the gateway as a preferred path for handing off the mobile call; establishing a communications link with a packet-switched network; and routing the mobile call from said mobile data base station to a wireless access point via the packet-switched network, such that the call is conducted via a wireless communications link using the wireless access point, all limitations in combination as defined by applicant.

Regarding claim 19, the prior art record fails to anticipate or render obvious a method for mobile device handoff between a mobile network and a wireless network comprising: on a mobile device, detecting a wireless access point of the wireless network; *on said mobile device, sending a SIP invite to a gateway informing the gateway that the mobile device will lower a transmit signal power to produce weakened signals to trigger a hand-off from the mobile network to the wireless network, and lowering a transmission power to a mobile data base station of said mobile network currently handling communications with said mobile device; on said mobile network, a mobile switching center detecting a lower power signal from said mobile device and identifying at least one mobile data base station of the mobile network available to handle communication with said mobile device, wherein a gateway serving as an interface between the mobile network and the wireless network is configured to appear as an additional data base station of the mobile network; and on a gateway associated with said wireless network, having previously received the SIP invite message informing the gateway that the mobile device will lower a transmit signal power to produce weakened signals, indicating to said mobile switching center that a heightened signal strength has been received*

from the mobile communication device for prompting the mobile switching center to handoff communications with said mobile device to said gateway for providing connectivity between said mobile switching center said mobile device through said wireless access point, wherein said heightened signal strength is not indicative of actual signal strength of said mobile device, all limitations in combination as defined by applicant.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen M Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong
AU: 2617
Date: 11/26/2007


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